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Analysis of the Use of TikTok as a Learning Resource for Biology Students at UIN Walisongo Semarang

Dyan Hamidah[1], Siti Ina Wakhidah[2], Diyah Pitaloka[3,] Pina Pastika[4]
[1,2,3,4]Program Studi Pendidikan Biologi, Fakultas Sains dan Teknologi, UIN Walisongo Semarang, Indonesia
2108086126@student.walisongo.ac.id[1]

Abstrak

Perkembangan teknologi digital telah mengubah metode pembelajaran, termasuk di bidang biologi. Tren penggunaan media sosial seperti TikTok sebagai sumber belajar oleh mahasiswa semakin meningkat. Penelitian ini bertujuan menganalisis pemanfaatan TikTok sebagai sumber belajar biologi di kalangan mahasiswa Biologi UIN Walisongo Semarang. Metode penelitian menggunakan kualitatif deskriptif dengan pengumpulan data melalui kuesioner. Hasil penelitian menunjukkan mayoritas responden (87,5%) memiliki akun TikTok dan memanfaatkannya untuk referensi materi biologi. Sebanyak 75% responden menganggap konten biologi di TikTok menarik dan memudahkan pemahaman, meskipun 25% lainnya merasa kurang memahami konten tersebut. Intensitas penggunaan TikTok bervariasi dari 5 menit hingga 10 jam per hari, dipengaruhi oleh faktor motivasi dan manajemen waktu. Penelitian ini menyimpulkan TikTok memiliki potensi besar sebagai sumber belajar biologi, namun diperlukan perbaikan kualitas konten untuk meningkatkan pemahaman mahasiswa. Hasil ini menjadi dasar pengembangan strategi pembelajaran biologi yang lebih efektif dengan memanfaatkan media sosial.

Kata Kunci: *Tik Tok; Sumber Belajar; Biologi*

Abstract

The development of digital technology has changed learning methods, including in the field of biology. The trend of students using social media, such as TikTok, as a learning resource is increasing. This research aims to analyze the use of TikTok as a biology learning resource among biology students at UIN Walisongo Semarang. The research method uses descriptive-qualitative data collection through questionnaires. The research results showed that the majority of respondents (87.5%) had a TikTok account and used it to reference biological material. As many as 75% of respondents found the biology content on TikTok interesting and easy to understand, although another 25% felt they did not understand the content. The intensity of TikTok use varies from 5 minutes to 10 hours per day, influenced by motivation and time management factors. This research concludes that TikTok has great potential as a biology learning resource, but improvements in content quality are needed to increase student understanding. These results are the basis for developing more effective biology learning strategies by utilizing social media.

Keywords: *TikTok; learning resource; Biology*

Introduction

21st-century learning has prominent characteristics, namely emphasizing 4C skills in the form of critical thinking, creative and innovative thinking, communication, and collaboration. 21st-century learning is followed by rapid technological developments. Many social media offer advantages of their application features so that users can use the application according to their needs.

The development of digital technology has changed the learning landscape in various disciplines, including biology. Advances in information and communication technology have brought about a transformation in learning methods, sources, and interactions. One emerging trend is the use of social media platforms as learning resources by students. One of the social media platforms that is currently popular among students is TikTok (Wardani & Noeraida, 2020). TikTok provides features that allow users to create, share, and watch creative and interesting short videos. The short, concise, and interactive content on TikTok is considered to be able to attract students' interest in learning, including in the field of biology (Wulandari & Nugroho, 2021).

Biology is one of the subjects that has a scope of discussion regarding living things, the environment and the relationship between the two. This subject is not free from innovations brought about by educators, content creators, and learning platforms. The existence of social media and users who have diverse interests, has created many innovative ideas for delivering biology material in an interesting way to encourage curiosity for those who enjoy the content. One of the platforms for innovation in biology content is TikTok. Social media that is familiar to young people to some elderly people also access the platform. This is a great opportunity for content creators to provide interesting biology information by collaborating with the available features. Several previous studies have identified the potential of TikTok as a source of learning biology. A study conducted by Saraswati and Maryani (2022) found that students tend to be more interested in learning biology material through visual content on social media such as TikTok. According to research by Saraswati and Maryani (2022), students feel that biology content on TikTok which is presented briefly, concisely, and interactively can make it easier for students to understand complex concepts. Similar findings were also revealed in the study by Wardani and Noeraida (2020), namely in the study, it was identified that the unique characteristics of TikTok content, namely in the form of short videos with a maximum duration of 60 seconds, can be a special attraction for students to learn biology. This short but interesting video format is considered to be able to visualize biological concepts more effectively and invite active involvement of students in the learning process. These various studies show that TikTok has quite great potential as a source of biology learning for students. Interactive and easy-to-understand visual content is considered to be able to increase students' interest and understanding of complex biology learning materials. This finding is an important basis for the development of biology learning strategies that utilize social media more

optimally. On the other hand, the use of TikTok as a learning resource also faces several challenges. Dewi & Suardana's (2021) study shows that there are variations in the intensity of TikTok use among students, which can be influenced by individual factors such as motivation and time management. In addition, the quality and clarity of biology learning content on TikTok also need to be considered. Given these potentials and challenges, this study aims to comprehensively analyze the use of TikTok as a source of biology learning among Biology students at UIN Walisongo Semarang. The results of this study are expected to provide a clearer picture of the opportunities and constraints of using TikTok in biology learning, as well as become a foundation for developing learning strategies that utilize social media effectively. This study aims to analyze the use of TikTok as a learning resource for biology students at UIN Walisongo Semarang. The respondent data obtained showed variations in the use of TikTok to learn biology among students. The results of this analysis are expected to provide new insights into the potential and challenges of using TikTok as a learning resource for biology in higher education.

Methods

This study uses a qualitative research method with a descriptive method. Descriptive qualitative is a study that has data in the form of words, sentences or images that have meaning to provide understanding (Nugrahani, 2014). The descriptive qualitative method is used to analyze data on the use of the TikTok application as a Learning Resource. In this case, the researcher collected data using an instrument in the form of a questionnaire. The results of the data collection will be analyzed to answer questions about the Utilization of TikTok as a Learning Resource for Biology Students at UIN Walisongo Semarang.

The data collection technique was taken online using a closed questionnaire instrument, using Google Form media. The sampling technique used purposive sampling with a target result of 34 participants with the qualifications of UIN Walisongo Semarang students who were studying biology and biology education. The instrument given consisted of 12 multiple-choice questions with the following options: Strongly Agree (SS), Agree (S), Undecided (RR), Disagree (TS), Strongly Disagree (STS) and two short answer questions.

Results

Based on the results of the respondent data analysis, several interesting findings were found regarding account ownership, perceptions, and intensity of TikTok use for biology learning. The majority of respondents (87.5%) have TikTok accounts and use them to search for biology references and materials. This shows that students have

adopted TikTok as one of their learning resources. This finding is in line with previous research which stated that students tend to be more interested in learning biology through visual content on social media such as TikTok (Saraswati & Maryani, 2022). In terms of perception, most respondents (75%) considered that the biology learning content on TikTok was very interesting and made it easier for them to understand. The characteristics of TikTok content which is short, concise, and interactive seem to be an attraction for students to learn biology material (Wardani & Noeraida, 2020). However, there were also respondents (25%) who felt that they did not understand the content, indicating a need to improve the quality and clarity of biology learning content on this platform. Meanwhile, the intensity of TikTok use for learning biology varies, from 5 minutes to 10 hours per day. This variation can be caused by differences in preferences, motivations, and time management abilities of individual students (Dewi & Suardana, 2021). Students who have high motivation and self-discipline tend to use TikTok more intensively to support their biology learning.

According to Fitrian et al. (2023) TikTok is quite popular among school-age children. TikTok is generally accessed as a medium to find out about developments in the era, an audio-visual-based social media that is in great demand by users. The use of TikTok can have a positive impact on students with the features offered to users. The content presented by TikTok is quite effective in helping students understand biology material. The variations presented by content creators are enough to make users interested in watching the content presented. The duration factor of the video presented is limited so that it gives a "brief" impression to users in understanding biology material, making the impression of biology content that was initially long and boring become short, concise, and easy to understand.

The emergence of various content creators who appear with biology as their main content has reached many biology students at UIN Walisongo Semarang, this is evidenced by the various answers given in the form of including several accounts including @biologi.aja, @biologystudent.notes, @sainsdunia, @rachbiology, @generasibiologi, @scienceworld.00, @alamsemenitreal, @wetyyuningsih, @sigmasmartstudy. The accounts listed generally focus on biology material but some are listed in one theme, namely science. The videos presented are short videos that are explained in a narrative manner using animation, illustrations, or video forms that display the creator's face. This shows the use of the TikTok platform as a learning resource for students who have the advantages of short duration, concise explanations, and concise delivery of concepts, this is shown in the respondent presentation which states that 87.5% use TikTok as a reference source for biology material and 75% state that the presentation of biology material is quite interesting and makes it easier for users to understand.

Conclution

Tiktok is one of the social media platforms that is currently popular among students. This platform has interesting features that attract viewers to watch videos that are packaged attractively, especially in the field of biology learning. The research that has been conducted found that around 87% have a TikTok account and are used as a learning resource. However, around 25% of respondents stated that they still did not understand the existing content so that they needed other clearer references or the need for clearer content modifications regarding the material to be delivered. The use of this platform also varies from person to person, this is due to differences in references, motivations, and individual student time management abilities.

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